

## Listing of Claims

1. - 25. (cancelled)

1           26. (new) A screen assembly for a vibratory separator, the screen assembly  
2 comprising

3                   a frame with a first frame end spaced apart from a second frame  
4 end by two opposed spaced-apart sides including a first side and a second side,  
5 screening material on the frame,

6                   a plurality of crossmembers spaced apart and extending from the  
7 first side to the second side, each crossmember of the plurality of  
8 crossmembers connected to the first side and the second side,

9                   each crossmember of the plurality of crossmembers having at least  
10 one elongated flat member,

11                   the at least one elongated flat member having at least one series  
12 of openings therethrough, and

13                   wherein each crossmember has a length and the at least one series  
14 of openings extending along substantially all of said length.

1           27. (new) The screen assembly of claim 26 wherein the at least one series of  
2 openings is two parallel spaced-apart series of openings.

1           28. (new) The screen assembly of claim 26 wherein the openings of the at  
2 least one series of openings are triangular in shape.

1           29. (new) The screen assembly of claim 28 wherein alternating openings are  
2 inverted with respect to openings adjacent thereto.

1           30. (new) The screen assembly of claim 26 further comprising  
2 a plurality of spaced-apart rods connected between and to the first  
3 frame end and the second frame end, and

4                   each rod of the plurality of spaced-apart rods passing through the  
5 plurality of crossmembers.

1           31. (new) The screen assembly of claim 26 wherein each of the two spaced-  
2 apart sides has a series of side openings.

1           32. (new) The screen assembly of claim 31 wherein each of the two spaced-  
2 apart sides has a series of cut out portions.

1 33. (new) The screen assembly of claim 32 wherein the side openings are not  
2 lined up with the cut out portions.

1 34. (new) The screen assembly of claim 261 at least one of the first frame end  
2 and the second frame end has a series of spaced-apart openings.

1 35. (new) The screen assembly of claim 26 wherein the at least one series of  
2 openings therethrough comprises a series of spaced-apart openings so that each of  
3 said crossmembers is a truss-like structure.

1 36. (new) The screen assembly of claim 26 wherein at least one elongated flat  
2 member is two of said members, comprising a first member and a second member, the  
3 first member having a length and the second member having a length,

4 the first member and the second member aligned along their  
5 lengths and at an angle to each other forming a "V" shape when viewed on  
6 end.

1 37. (new) The screen assembly of claim 26 wherein the screening material is  
2 a plurality of superimposed layers of screening material.

1 38. (new) The screen assembly of claim 37 wherein the plurality of layers of  
2 screening material are connected together and are connected to the plurality of  
3 crossmembers.

1 39. (new) The screen assembly of claim 26 further comprising  
2 a plurality of holding portions including a plurality of holding  
3 portions on each of the first side and the second side, each of the plurality of holding  
4 portions for holding one of the plurality of crossmembers, each holding portion  
5 extending inwardly from a surface of the first side or of the second side,  
6 each holding portion connected to a corresponding crossmember,  
7 and

8 each crossmember having two ends and a holding portion  
9 connected to each of said ends.

1 40. (new) The screen assembly of claim 39 wherein each holding portion has  
2 a recess therein and part of a corresponding crossmember is disposed within said  
3 recess.

1 41. (new) A vibratory separator for treating material introduced thereto, the  
2 vibratory separator comprising

3 screen assembly holding apparatus,  
4 vibration apparatus for vibrating a screen assembly on the screen  
5 assembly holding apparatus, and  
6 at least one screen assembly on the screen assembly holding  
7 apparatus, the at least one screen assembly comprising a frame with a first  
8 frame end spaced apart from a second frame end by two opposed spaced-apart  
9 sides including a first side and a second side, screening material on the frame,  
10 a plurality of crossmembers spaced apart and extending from the first side to  
11 the second side, each crossmember of the plurality of crossmembers connected  
12 to the first side and the second side, each crossmember of the plurality of  
13 crossmembers having at least one elongated flat member, the at least one  
14 elongated flat member having at least one series of openings therethrough, and  
15 wherein each crossmember has a length and the at least one series of openings  
16 extending along substantially all of said length.

1 42. (new) A method for treating material with a vibratory separator, the  
2 method comprising

3 introducing material to be treated to a vibratory separator, the  
4 vibratory separator comprising

5 screen assembly holding apparatus including screen  
6 mounting structure,

7 vibration apparatus for vibrating a screen assembly on the  
8 screen assembly holding apparatus,

9 at least one screen assembly on the screen assembly  
10 holding apparatus, the at least one screen assembly comprising a frame  
11 with a first frame end spaced apart from a second frame end by two  
12 opposed spaced-apart sides including a first side and a second side,  
13 screening material on the frame, a plurality of crossmembers spaced  
14 apart and extending from the first side to the second side, each  
15 crossmember of the plurality of crossmembers connected to the first side  
16 and the second side, each crossmember of the plurality of crossmembers  
17 having at least one elongated flat member, the at least one elongated flat  
18 member having at least one series of openings therethrough, and wherein

19 each crossmember has a length and the at least one series of openings  
20 extending along substantially all of said length.

21 43. (new) The method of claim 42 wherein the vibratory separator includes  
22 screen mounting structure, the screen mounting structure including a plurality of  
23 support members extending from a first separator side of the vibratory separator to  
24 a second separator side thereof with material flowable between said sides in a first  
25 direction that is a direction generally parallel to said sides, the screen assembly having  
26 a support and screening material on the support for treating material introduced to the  
27 vibratory separator, the support including four interconnected sides including two pairs  
28 of sides, a first pair with a first side and a second side and a second pair with a third  
29 side and a fourth side, the first side spaced-apart from the second side by spaced-  
30 apart third and fourth sides, the first side and the second side generally parallel to the  
31 first separator side and the second separator side upon installation of the screen  
32 assembly in the vibratory separator, the support having generally screening material  
33 thereon, the support having a plurality of spaced-apart longitudinal crossmembers  
34 extending between and connected to only one of the pairs of sides, each longitudinal  
35 crossmember not in contact with the third side and the fourth side, the screen  
36 mounting structure including crowning apparatus for forcible abutment against the  
37 third side and the fourth side of the support to effect bending of the first side and the  
38 second side of the support and thereby effect crowning of the screen assembly within  
39 the vibratory separator, the method further comprising

40 locating the screen assembly on the screen mounting structure,  
41 positioning the screen assembly with respect to the screen  
42 mounting structure so that the longitudinal crossmembers are all generally  
43 transverse to the first direction, and

44 forcing the first and second sides of the support down with the  
45 crowning apparatus to effect crowning of the screen assembly, the support  
46 rigid yet sufficiently flexible so that with the screen assembly in a crowned  
47 configuration the third side and the fourth side each along substantially all of  
48 the length thereof sealingly contact a surface of the screen mounting structure.

1 44. (new) The screen assembly of claim 43 wherein the plurality of longitudinal  
2 crossmembers of the support includes a first longitudinal crossmember and a second

3 longitudinal crossmember and at least one transverse crossmember extending between  
4 and connected to the first longitudinal crossmember and the second longitudinal  
5 crossmember.

1 45. (new) The screen assembly of claim 44 wherein the at least one transverse  
2 crossmember is two transverse crossmembers equally spaced-apart from each other  
3 and from the first and second sides of the support.